

| <b>Notice of Allowability</b> | <b>Application No.</b>  | <b>Applicant(s)</b> |  |
|-------------------------------|-------------------------|---------------------|--|
|                               | 10/659,234              | MUELLER ET AL.      |  |
|                               | Examiner                | Art Unit            |  |
|                               | Manjunath N. Rao, Ph.D. | 1652                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to the paper filed on 12-12-06.
2.  The allowed claim(s) is/are 2-6, 12-15, 17-27, 37-40 and 44.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
 Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
 Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
 of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
 Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

### **DETAILED ACTION**

Claims 2-6, 12-27, 37-40, 44 are currently pending and are present for examination.

Applicants' amendments and arguments filed on 12-12-06, have been fully considered and are deemed to be persuasive to overcome the rejections previously applied. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

#### ***Biological Deposit Requirement***

Applicant has failed to provide the Declaration for the Biological Deposit as requested by the Examiner in the previous Office action. In a telephone conversation with the applicant on 2-13-07, Examiner urged the applicant to provide said Declaration before payment of the issue fees.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Karen I Krupen on 2-13-07.

The application has been amended as follows:

#### **In the claims:**

A) In claim 2, line 2 delete "protein":

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- B) In claim 2, line 2, insert the phrase “protein (GLUT4V85M)” after “transporter 4”.
- C) In claim 2, line 3, delete “GLUT4V85M”.
- D) In claim 3, line 2, delete the phrase “according to” and replace with “of”.
- E) In claim 4, line 2, delete the word “for”.
- F) Cancel claim 16 without any prejudice.
- G) In claim 19, line 2, delete “claim 16” and replace with “claim 4”.
- H) In claim 25, line 6, insert the phrase “of SEQ ID NO:2” after the word “protein”.

***Allowable Subject Matter***

Claims 2-6, 12-15, 17-27, 37-40, 44 are allowed.

The following is an examiner’s statement of reasons for allowance: Following a diligent search it was determined that the prior art neither teaches nor suggests an isolated polynucleotide encoding a variant glucose transporter 4 protein as claimed in claims 2-15, 17-27, 37-40, 44.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Manjunath N. Rao, Ph.D. whose telephone number is 571-272-0939. The Examiner can normally be reached on 7.00 a.m. to 3.30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner’s supervisor, Ponnathapura Achutamurthy can be reached on 571-272-0928. The fax phone numbers for the organization

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where this application or proceeding is assigned is 571-273-8300 for regular communications and for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.



Manjunath N. Rao, Ph.D.  
Primary Examiner  
Art Unit 1652

February 15, 2007